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September 8, 1999

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
12th Street Lobby, TW-A325
Washington, D.C. 20554

Re: Written *Ex Parte* Presentation in CC Docket No. 96-98, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996

Dear Ms. Salas:

The Telecommunications Industry Association (TIA) submits the enclosed *ex parte* letter (with attachment) for inclusion in the record of the above-captioned proceeding. Pursuant to Section 1.419 of the Commission's Rules, 47 C.F.R. § 1.419, an original and four (4) copies are enclosed.

If you have any questions concerning this filing please contact the undersigned.

Respectfully Submitted,

Derek R. Khlopin
Regulatory Counsel

Enclosures

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Grant E. Seiffert
Vice President, Government Relations

TELECOMMUNICATIONS®
TIA
INDUSTRY ASSOCIATION

September 8, 1999

The Honorable William E. Kennard
Federal Communications Commission
445 12th Street, SW
Room 8-B201
Washington, DC 20554

Re: Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98

Dear Chairman Kennard:

As a result of a recent meeting with officials of the Office of Engineering and Technology, TIA was asked to answer a series of questions relating to a proposal we submitted for the Commission's consideration in this proceeding. Please find our responses enclosed, which have been forwarded to the Secretary for inclusion in the record.

As you recall, TIA's proposal revolves around the notion that new advanced broadband telecommunications facilities should not be subject to the unbundling obligations imposed on incumbent local exchange carriers. TIA is grateful that you and the Commission have been willing to consider our recommendation for one mechanism that could spur the deployment of advanced telecommunications while not undermining the market-opening provisions of the Telecommunications Act of 1996.

I am confident that the enclosed material will serve to "round out the corners" of TIA's position and prove useful to the Commission's deliberations in this important proceeding. Thank you again.

Sincerely,

Grant E. Seiffert

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cc: Magalie Roman Salas, Secretary
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Commissioner Harold Furchtgott-Roth
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Claudia Fox, Common Carrier Bureau
Janice Myles, Common Carrier Bureau
ITS

Response to Questions Posed by the Office of Engineering and Technology Regarding TIA's Proposal[1] in the UNE Proceeding

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Question 1: What replaces the pro-competitive copper model of unbundled copper pairs at [the] CO in "deep fiber" world?

Answer: TIA proposes replacing the unbundled copper model in a very narrow set of circumstances with three alternative pro-competitive models:

(1) the "facilities-based model" where new entrants can deploy their own facilities to provide service in competition with the incumbent;
(2) an "interconnection model" where the new entrant can negotiate with the ILEC to use a portion of its facilities combined with the new entrant's facilities to provide a competitive service; or
(3) a "leasing model" where the new entrant negotiate carriage with non-ILEC carriers (e.g., cable with operators or wireless carriers) to compete with the ILEC.

It should also be noted that, under TIA's proposal, a competitor could also avail itself of the resale under Section 251 (c) (4) of the Telecommunications Act of 1996 to gain access to the consumer. Resale would continue as an ILEC obligation because it is beyond the scope of the ongoing providing as noted in treatment Question 2. But, like unbundling, resale may also be a regulatory impediment to the deployment of new residential broadband facilities. TIA intends to address the resale issue separately in the next appropriate proceeding.

In evaluating the viability of TIA's proposal, it is important for the Commission to understand that the proposal applies to a *very narrow class of facilities.* These facilities are identified in TIA's August 2 *ex-parte* submission as "new residential broadband loop facilities." These facilities are defined by the following characteristics:

(1) they must be new builds or total rehabs (i.e., consist of replacement of entire outside plant from central office to the customer's premises) deployed after July 1, 1999;
(2) they must provide service only to residential subscribers; and
(3) they must be capable of providing POTS, 10 Base T data, and VHS quality video, or must be capable of providing all these services through the simple upgrade of electronics.

[1] *Ex-parte* submission, Letter to FCC Chairman William E. Kennard from Matthew J. Flanigan, President of the Telecommunications Industry Association, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996 CC Docket No. 96-98, August 2, 1999.

By proposing regulatory relief solely for this very narrow class of facilities, TIA believes that the relief will not harm the development of competition. Because these facilities are new, all carriers that consider deploying them are in precisely the same competitive position. No carrier has a cost advantage by virtue of its ability to leverage existing facilities. There is probably no condition other than a new build or total rehab where ILECs and CLECs would be in a more equally comparable position to compete.

The ability for CLECs to compete head-on-head with ILECs in the deployment of new residential broadband loop facilities is already being demonstrated in the market place, thus validating TIA claims. For example, ClearWorks Technologies, Inc. is offering in direct competition with the ILEC its 100 Mbps "bundled digital services" package including voice, data, and video to residential subscribers in new developments. ClearWork's service offering precisely meets the definition of new residential broadband loop facilities proposed by TIA. ClearWorks, which has a strategic relationship with IBM, has deployed its proprietary broadband capability and offered its "bundled digital services" to 6,000 subscribers in Houston, and has contracts with developers in Phoenix, Los Vegas, and Denver to deploy its proprietary broadband solution to 21,000 subscribes.[2]

TIA believes that the deployment of broadband capability in the residential market is not a natural monopoly, thus making viable the facilities-based model upon which TIA's proposal rests. As evidence, TIA points to the experience of RCN, a CLEC competing to provide voice, internet access, and cable serve to residential customers over its unique broadband architecture in *direct competition with incumbents.* What's more, RCN has been quite successful. As of the fourth quarter of 1998, it reports passing 304,505 homes with its advanced fiber capability and winning 31,000 voice customers, 86,000 video customers, and 6,000 data customers from incumbents using the power of its advanced network.[3]

Head-to-head facilities-based competition in the advanced services market is now widespread through the country, providing further support on the viability of TIA's proposal. Such facilities-based competition exists today in 11 cities:

Atlanta, GA	Philadelphia, PA
Baltimore, MD	Phoenix, AZ
Boston, MA	Orange County, CA
Chicago, IL	San Diego, CA
Detroit, MI	Seattle, WA
Los Angeles, CA	

[2] http://www.txdirect.net/users/hoffman/CLWKBP.htm
[3] *Frogs Dogs Hogs and Streams,* 1998 RCN, Annual Report, p. 6

Appendix A provides a detailed listing of the firms engaged in such competition.[4]

The Commission agrees with TIA in its belief that the residential broadband is not a natural monopoly. In its February 1999 *Advanced Services Report* the Commission insightfully observed:

> "We believe it is pre-mature to conclude that there will not be competition in the consumer market for broadband. The preconditions for monopoly appear absent. Today, no competitor has a large embedded base of paying residential consumers. The record does not indicate that the consumer market is inherently a natural monopoly. Although the market is at the early stages of development, we see the potential through this market to accommodate different technologies such as DSL, cable modems, utility fiber to the home, satellite and terrestrial radio. The facts [sic] that the different companies are using different technologies to bring broadband to residential customers and that existing broadband technology has advantages and disadvantages as a means of delivery to millions of customers opens the possibly of intermodal competition, like that between trucks, trains, and planes in transportation. By the standards of traditional residential telecommunications, there are, or likely will soon be, a large number of actual participants and potential entrants in this market. Anti-competitive coordination among competitors is difficult in such markets." [5]

The *Advanced Services Report* goes on to provide detailed evidence of the viability of facilities-based competition by outlining examples of current deployments of improved and entirely new broadband facilities that serve last mile to residential customers. These deployments incorporate a variety of competing technologies including xDSL, cable modems, utility-provided fiber, wireless cable, satellite and third generation wireless.[6] The Commission cited the following examples:

- **Cable Television:** In 1997 alone, the cable industry spent $6 billion on the deployment of two-way broadband via high-speed cable modems. These include services such as @ Home and Road Runner. @ Home's base of homes with access to two-way upgraded plant increased from 7.9 million on June 30, 1998 to 10 million on September 30,1998. The providers of Road Runner state that by the year 2000, it will be available to all of the 27 million

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[4] TIA realizes that the head-to-head competition in these cities is largely ADSL vs cable modems. Neither capability can provide the robust level of service envisioned in TIA's definition of new residential broadband loop facilities. Nonetheless, the experience in those cities demonstrates empirically that faculties-based competition is economically feasible.

[5] Inquiry Concerning the Deployment of Advanced Telecommunications Capability to all Americans in a Reasonable and a Timely Fashion, and Possible Steps to Accelerate Such Deployment Persuant to Section 706 of the Telecommunications Act in *1996, Advanced Services Report,* CC DOC. No. 98-146 Adopted January 28, 1999, Released February 2, 1999.

[6] *supra Note* 4, paras 54-61, pp. 28-32

homes passed by Time Warner and MediaOne, as well as homes passed by other affiliated cable companies.[7]

- **Public Utilities:** A growing number of public utilities offer broadband within their utility service territories. The utilities generally offer broadband capability in joint ventures with software and content providers. Utility-based offerings have begun in major northeastern cities and San Francisco, and have begun or are under study in smaller cities. According to one estimate, they have passed 122,000 homes with "advanced fiber."[8]
- **CLECs:** A number of competitive LECs, such as Covad, Rhythms NetConnections, e.spire, and Network Plus are providing broadband to residential consumers.[9]
- **Wireless Cable:** In a significant number of cities, wireless cable, MDS or MMDS companies are offering broadband to residential consumers in cities as large as New York and San Francisco, as well as smaller cities such as Jackson, Mississippi and Sherman, Texas. One estimate is that several million residential consumers could now obtain broadband service from MMDS providers.[10]
- **ILECs:** These companies have announced expansion plans for 1999 that are ambitious and target millions of residential customers for broadband. The Bell Operating Companies and GTE have announced plans to offer broadband to approximately twenty million homes this year.[11]
- **Satellite-Based Providers and 3G Wireless:** Within the next decade, these providers plan to enter the residential broadband marketplace. Providers such as Loral's Cyber Star unit, Hughes' Spaceway, Lockheed Martin's Astrolink, SkyBridge, and Teledesic. Third Generation (3G) wireless broadband service by CMRS providers, AT&T's Project Angel, over-the-air broadcasters using digital broadcast spectrum, local multipoint service, and other high bandwidth companies will provide additional entry for residential consumers.[12]

Charts 2 and 3 of the *Advanced Services Report* list all the different technologies that are available today to provide broadband service to residential customers, further providing evidence of intermodal competition that is possible under the TIA proposal.[13]

TIA's proposal is also consistent with FCC Chairman Kennard's stated position on broadband. Specifically, in a June 15 speech the Chairman said:

> "So with competition and deregulation as our touchstones, the FCC has taken a hands-off deregulatory approach to the broadband market. We

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[7] *id*, para. 54, pp. 28-29
[8] *id*, para. 55, p. 29
[9] *id*, para, 56, p. 30
[10] *id*, para. 57, p. 30
[11] *id*, para, 58 pp. 30-31
[12] *id*, para. 60, p. 31
[13] *id*, pp. 33 and 49

approved the AT&T – TCI deal without imposing conditions that they open there market (emphasis added)." [14]

TIA's proposal is clearly deregulatory, and it does not harm competition. Moreover, is consistent with the FCC's position on the AT&T-TCI merger in that it begins to treat ILEC deployment of broadband similar to the treatment the Commission has granted AT&T-TCI. We emphasize that *it begins to move toward equal treatment* because the ILECs continue to carry interconnection and resale obligations which do not apply to AT&T-TCI. Equal treatment is not even close under the TIA proposal.

Finally, TIA believes that its proposal conforms to Section 251 (d) (2) for two reasons:

(1) unbundling new residential broadband loop facilities is not "necessary" because CLECs can use a variety of alternative methods (e.g., the "facilities- based model or the "interconnection model") to gain broadband access to the consumer, methods which have been demonstrated herein to be viable; and
(2) failure to grant CLECs access to new residential broadband loop facilities will not impair the CLECs' ability to offer broadband service because as demonstrated herein they can deploy their own broadband facilities to offer service using any of a wide variety of competing broadband technologies, or they can negotiate interconnection agreements *with the right to arbitration*, which ensures that the CLECs will not be overcharged for broadband access.

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Question 2: If there is no unbundling, where is interconnect required? What interconnect and resale requirements (i.e. specification of 251 (c) (2) and (4)) would be meet the pro-competitive intent of the Act?

Answer: Under TIA's proposal, the ILEC interconnection obligation under Section 251 (c) (2) and in the resale obligation in Section 251 (c) (4) would be unaffected. These specific obligations are beyond the scope of the ongoing Second Further Notice of Proposal Rulemaking in CC Docket No. 96-98 which provided the basis for TIA's submission. TIA believes the resale obligation may also be posing a regulatory obstacle to broadband deployment. But, for the purposes of the ongoing proceeding, TIA has decided not to address the resale issue.

[14] *The Road Not Taken: Building a Broadband Future for America,* Remarks of William E. Kennard, FCC Chairman, before the National Cable Television Association, Chicago, IL (June 15, 1999) (as prepared for delivery).

Question 3: BellSouth seems to be the only major ILEC deploying this type of technology today. Why does this technology prove in for BellSouth and not for the other ILECs?

Answer: TIA believes that fiber-based local loop solutions to provide voice service to residential subscribers prove out for most ILECs and CLECs as a cost competitive alternative relative to copper when evaluated on an installed first cost basis. TIA provided four Declarations in it submission to demonstrate this point. TIA also believes that fiber-based solutions provide competitive technology alternatives for most ILECs and CLECs for the delivery of other services beyond voice. For example, TIA submitted one Declaration by Jeffrey Jacobs, an Engineering Manager with Corning Incorporated, which demonstrates that a fiber-based system which delivers POTS, 10 Base T, and VHS quality video can be deployed for a cost which beats the ADSL over copper. These estimates assume new builds or total rehabs. They do not involve cost comparisons where existing facilities are leveraged in order to gain cost advantage.

TIA believes that there is nothing inherently different about BellSouth's network that would explain why it is behaving differently that its counterparts in the deployment of new residential broadband loop facilities. As stated in the Declarations, the economics of fiber deployment in the local loop are the same for all carriers. The more important question is why the other ILECs are behaving differently than BellSouth. TIA believes regulation is playing a critical role. The basis for this opinion is presented in the answer to Question 9.

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Question 4: Usually, only parts of the loops get rehabilitated, e.g., a bad section of the feeder or distribution. "Total" rehabs are atypical. Does the request for no unbundling for "total" rehabs make sense? Wouldn't it encourage mass rehabs for the purpose of blocking competition?

Answer: TIA's proposal applies only to new builds and to total rehabs in order to establish a condition in which all carriers are in the same competitive position. The proposal is not intended to favor one class of carrier over another. If the proposal were to apply to partial rehabs, incumbents could leverage existing facilities to reduce cost and gain a competitive advantage. TIA believes that this would be unacceptable to the FCC. In deference to the Commission, TIA has made a more modest proposal.

TIA believes it is unlikely that the proposal would encourage "mass rehabs for the purpose of blocking competition" for several reasons. First, such a strategy would never work because the broadband local loop serving residential customers is not a natural monopoly. This was demonstrated conclusively in the response to Question 1. And, the Commission agreed with this conclusion in its February 1999 *Advanced Services Report,* when it said:

> "We believe it is premature to conclude that there will not be competition in the consumer market for broadband. The preconditions for monopoly appear absent....The record does not indicate that the consumer market is inherently a natural monopoly." [15]

The Commission goes on to state in the same *Report:*

> "The facts [sic] that the different companies are using different technologies to bring broadband to residential consumers and that each existing broadband technology has advantages and disadvantages as a means of delivery to millions of customers opens the possibility of intermodal competition, like that between trucks, trains, and planes in transportation."[16]

Second, the ILECs are unlikely to pursue a strategy for the sole purpose of "blocking competition" because such a strategy would involve the investment of billions of dollars in infrastructure. The stock market does not reward the ILECs for investing in infrastructure. Thus, the decision to invest billions of dollars in infrastructure for the purpose of blocking competition would adversely affect shareholder value.

Question 5: Does the assumed density in the cost model imply too large a market share to be realistic for multiple providers in one neighborhood? Does FTTC give the first mover a big advantage? For rehabs, can CLEC attract away of enough customers already being served by the ILEC to make FTTC economical? Would ILEC support a model that allowed another company, say AT&T, to be a builder's only choice for providing a full services wireline offer?

Answer: This question involves multiple questions. The following is an attempt to answer each one of them separately.

First of all, the take rates (or penetration rates) drive the relative cost in the models that were presented in TIA's submission. The rates in each model are different as indicated in the chart below.

[15] *supra* Note 4, para. 48, p. 25
[16] *id*, para. 48, p. 26

Penetration Levels Assumed In Cost Models

	POTS	10 Base T Data	VHS Quality Video
Cannata Declaration-Marconi	100%	10-20%	30%
Jacobs Declaration-Corning	35%	35%	35%
Tuhy Declaration-Next Level	100%	NA	NA
Sheffer Declaration-Bellcore	100%	9-15%	20-38%

At these take rates, it is quite possible for 2 carriers to use the same technology and architecture to successfully offer the same set of services to customers in the same geographic market.

But, it is highly unlikely that carriers would use the same broadband technology and architecture and offer the same service set to customers in the same geographic. They would use different technology and different service combinations to differentiate their offering. The FCC has noted in its own *Advanced Services Report* that:

> "Different companies are using different technologies to bring broadband to residential customers and that each existing broadband technology has advantages and disadvantages. Thus, it is likely that competing carriers would use different technologies and architectures to deliver different sets of services to the residential customers at different prices."[17]

With respect to the question referring to the "builders only choice," the law makes it impossible for any builder to grant monopoly status to a carrier, be it an ILEC, a CLEC, or AT&T. Builders must grant rights away for utilities as a condition for receiving permits to build. These rights away are controlled by local governments. Section 253 (a) of the Telecommunications Act of 1996 states clearly that no:

> "State or local statute or regulation, or other state or local legal requirement, may prohibit or have the effect of prohibiting the ability of an entity to provide any interstate or intrastate telecommunications service."[18]

[17] *id*, para 48, p. 26
[18] 47 USC 253

This Section goes on to prescribe the rules under which rights of way are granted to ensure fair treatment for competition. Under no condition can a CLEC be denied access. Section 253 (a) also gives the FCC authority to pre-empt states and local authorities that impose such prohibitions.[19]

More information is provided in response to Question 7 regarding issues of rights of away.

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Question 6: Does a CLEC's lack of predeployed dark fiber constitute an impairment?

Answer: No. There is no predeployed dark fiber in the local loop facilities serving residential customers. In 1998, TIA estimates that only 300,000 kilometers of fiber were deployed in the local access portion of the residential market. This volume of fiber can serve 395,000 homes or 0.4% of the residential access lines. Even if this were all dark fiber, access to it would be of little or no value to the CLECs. It is simply too small a portion of the market.

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Question 7: Once the fiber is in the ground for one provider, do subsequent providers have problems getting necessary rights of way to trench through property?

Answer: Under Section 253, all providers have a right of access to rights-of-way. While municipalities may seek to regulate access to streets and control trenching, these restrictions must, by statute, fall equally on all potential providers. Section 253 (c) requires that state or local management of public rights-of-way to be "competitively neutral and nondiscriminatory". This matter is being dealt with in the Competitive Networks proceeding (WT Docket No. 99-217).

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Question 8: At the rate that prices are dropping for electronics, will there be any doubt about the technology of choice for new builds in 2 years?

Answer: Yes. As the Commission noted in its February 1999 *Advanced Services Report*, multiple technologies and architectures will be utilized to provide broadband capability in the residential market. Specifically, the Commission said:

[19] *Supra Note 4, para 3 pages 25-26*

"Although the consumer market is in the early stages of development, we see the potential for this market to accommodate different technologies such as DSL, cable modems, utility fiber-to-the-home, satellite and terrestrial radio."[20]

We agree with the Commission's assessment. No one can predict the technology that will be dominant. In fact, no technology or architecture is likely to be dominant.

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Question 9: Corning claimed that regulation has prevented investment in these type of systems. Is that true?

Answer: TIA members believe that the unbundling rules have inhibited investment by ILECs in new residential broadband loop facilities because they have been told by their customers that this is the case. Not only have TIA members been told this by the ILECs, but they have also made it clear in the record of this proceeding that the unbundling requirement is inhibiting investment in new technologies and services.[21] The ILEC made the following specific comments in this proceeding regarding the negative impact on investment that the unbundling rules are having:

- Ameritech notes that "[t]he engine of the competitive process is the ability of firms, developing efficiencies and innovative new products and services, to differentiate themselves from their competitors. Unbundling requirements deny incumbents that ability."[22]

- US West states that "[f]orced sharing of proprietary elements would be particularly destructive in areas of new and advanced services since that is where innovation and investment are most prevalent and vital today.[23]

- SBC goes even further in its comments, stating that "[t]he combination of an unbundling requirement and TERLRIC pricing would completely eviscerate an ILECs incentive to deploy such [new] technologies, by leaving the ILECs with all the risk and none of the reward."[24]

- Bell Atlantic observes that "incumbent carriers will have little incentive to invest in advanced services equipment if it is burdened with an unbundling obligation."[25]

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[20] *Supra* Note 4, para 48 pages 25-26.
[21] None of the comment specifically address investment in new residential broadband loop facilities. This is probably due to the fact that TIAs proposal was made after the expiration of the reply round in this proceeding.
[22] 11 FCC Red 15499, 15642, para. 282 (1996).
[23] Comments of Ameritech, CC Docket No. 96-98, at 25-26 (filed May 26, 1999).
[24] Comments of US West, CC Docket No. 96-98, at 24 (filed May 26, 1999).
[25] Comments of SBC Communications Inc., CC Docket No. 96-98, at 76-77 (filed May 26, 1999).

There is every reason to believe that ILEC are making truthful representations of this matter because the logic of their argument is irrefutable.
Kathleen Wallman, former Chief of the FCC's Common Bureau and Deputy White House Counsel, has summed up this logic quite succinctly. In addressing the question of broadband deployment she stated:

> "Do we really mean to say that any carrier that is thinking of building a new broadband network should count on being able to recover, from day one of the operation, only the forward looking cost of their brand new network? I don't think so. No rational, efficient firm would take that deal. And that would be our collective loss, not just theirs.".[26]

Justice Breyer reinforces this observation in noting that "a sharing requirement may diminish the original owner's incentive to keep up or to improve the property by depriving the owner of the fruits of value-creating investment, research, or labor."[27]

Even the Commission has noted that overbroad unbundling requirements could discourage investment. In its *Local Competition Order*, the Commission "acknowledge[d] that prohibiting incumbents from refusing access to proprietary elements could reduce their incentives to offer innovative services."[28]

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Question 10: Would the TIA proposal in effect create a broadband monopoly in each neighborhood for the first company in?

Answer: Absolutely not. Both TIA and the Commission agree that the broadband consumer market is not inherently a natural monopoly. In the answer to Question 1, TIA points to case after case where facilities-based competition exists today, thereby proving the absence of a natural monopoly. And, the Commission concluded in its February 1999 *Advanced Services Report* that: [29]

> "We believe it is premature to conclude that there will not be competition in the consumer market for broadband. The preconditions for monopoly appear absent. Today, no competitor has a large embedded base of paying residential consumers. The record does not indicate that the consumer market is inherently a natural monopoly. Although the consumer market is in the early stages of development, we see the

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[26] Remarks of Kathleen Wallman at the annual convention of the National Association of Regulatory Utility Commissioners, Boston, Mass., Nov. 11, 1997 (emphasis added).
[27] AT&T Corp. v. Iowa Util. Bd., 119 S. Ct. 721, 753 (1999) Breyer, J. concurring in part and dissenting in part) (citing 1. H. Demstez, Ownership, Control, and the Firm: The Organization of Economic Activity, 207 (1988)).
[28] 11 FCC Red 15499, 15642, para. 282 (1996).
[29] *supra* Note 4, para 48 pages 25-26

potential for this market to accommodate different technologies such as DSL, cable modems, utility fiber to the home, satellite and terrestrial radio. The facts [sic] that different companies are using different technologies to bring broadband to residential consumers and that each existing broadband technology has advantages and disadvantages as a means of delivery to millions of customers opens the possibility of intermodal competition, like that between trucks, trains, and planes in transportation. By the standards of traditional residential telecommunications, there are, or likely will soon be, a large number of actual participants and potential entrants in this market. Anti-competitive coordination among competitors is difficult in such markets."[30]

The Commission's observation is further supported by the announced investments by AT&T and the ILECs as they position themselves to compete in the broadband services[31] market using their own facilities. Here is evidence:

- AT&T has invested approximately $100 billion in merging with TCI and in proposing to merger with MediaOne. These mergers, along with carriage agreement that AT&T has with Time Warner, gives AT&T a platform to provide voice, high speed data, and broadcast video to over 60% of the homes to America. AT&T has announced plans to invest in over $9 billion to upgrade its existing cable plant to provide these services.

- SBC has announced a "massive rollout" of ADSL targeting more than 500 central offices and 9.5 million residential and business customers by year end.[32]

- Bell Atlantic has formed a marketing alliance with America Online under which Bell Atlantic hopes, by the end of 1999, to make ADSL available to 7 million subscribers. Its goal is to offer ADSL to 14 million customers by the end 2000.[33]

- Bell South has announced plans to offer ADSL services to 7.1million customers in 30 markets by the end of 1998 and 23 additional markets by the end of 1999.[34]

Finally, evidence indicates that with the deployment of advanced communications technology, the first company does not necessarily have an advantage. The recent bankruptcy of Iridium demonstrates the fallacy of the "first mover" theory. In reporting on Iridium's failure, the *Wall Street Journal* observes:

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[30] Inquiry Concerning the Deployment of Advanced Telecommunications Capability to all Americans in a Reasonable and a Timely Fashion, and Possible Steps to Accelerate Such Deployment Persuant to Section 706 of the Telecommunications Act in *1996, Advanced Services Report,* CC DOC. No. 98-146 Adopted January 28, 1999, Released February 2, 1999.
[31] *Supra* Note 2.
[32] *supra* Note 4, para 42 page 22
[33] *supra* Note 4, para 42, page 23
[34] *supra* Note 4, para 42, page 22

"Unless a company has strong patent rights (as in pharmaceuticals) or the ability to reduce costs and keep up with demand, the advantages of pioneering are fleeting and the risks are many, especially with fast-moving technology. Innovative "fast followers" benefit from the pioneer's experience to fine-tune their own [plan] and use more powerful and cost-effective second-generation technology, more precise targeting, better pricing and so on. In fact, a 1993 study by Peter Golder and Gerard Tellis found that pioneers were market-share leaders in only four out of 50 product categories." [35]

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Question 11: Does it make sense to not require unbundling after a fiber rehab if the ILEC leaves the old copper in place and maintains it for CLECs?

Answer: It certainly would make economic sense for the ILEC have in the option of selling the old copper plant which it chooses to replace with a total rehab. Of course, the ILEC would have an incentive to sell the facility to the highest bidder. Such a market-based outcome would be desirable. But, to require that the old copper plant be maintained and unbundled by the ILEC constitutes an unnecessary and intrusive form of regulation that would likely undermine the effectiveness of TIA's proposal.

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Question 12: Could the new fiber systems be owned by a separate subsidiary in a workable way?

Answer: A separate subsidiary requirement is inconsistent with TIA's proposal. TIA argues in its submission that a regulatory failure is occurring because fiber-based solutions are not being deployed even though they are cost effective relative to copper. The adoptation of a separate subsidiary requirement would add cost to fiber systems, thereby making it more difficult to deploy the technology. There is no redeeming social value for imposing an additional regulatory cost on the deployment of fiber technology. Indeed, many good policy reasons have been articulated by Chairman Kennard and others for deploying broadband technology (including fiber) sooner rather than later.

Moreover, a separate subsidiary requirement is not workable unless the ILEC is required to maintain a separate loop for unbundling purpose. This would be terribly inefficient and would certainly offset the advantages of building a network that can integrate all services.

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[35] "Manager's Journal: Why Cell Phases Succeeded Where Iridium Failed," *Wall Street Journal*, Jagdish N. Sheth and Rajendra Sisodia, August 23, 1999.

APPENDIX A

Cities Where There Is Facilities- Based Competition Today for the Delivery of Advance Services

City/State	ILEC Provider(s) of xDSL Service	CLEC & Other Provider(s) xDSL Service	MSA Provider(s) of Cable Modem Service
Chicago, IL	None	American Information Systems, @Work, Concentric, Covad, Flashcom, InterAccess, NorthPoint, Rhythms, UUNET, Verio, and 8 ISP Partners	21Century, Media One, Prime Cable
Baltimore, MD		Concentric, Covad, Flashcom, DigitalSelect, NorthPoint, UUNET, Verio and 5 ISP Partners	Comcast
Detroit, MI		Flashcom, NorthPoint, UUNET, and 2 ISP Partners	Comcast, Media One
Philadelphia, PA	Bell Atlantic	Covad, Flashcom, NorthPoint, and 6 ISP Partners	Comcast
Atlanta GA	Bell South	Covad, DigitalSelect, Flashcom, ICG Netcom, NorthPoint, UUNET, Verio, and 7 ISP Partners	Comcast, Media One
Orange County CA	SBC	Concentric, Covad, Flashcom, NorthPoint, Rhythms, UUNET, Verio, and 35 ISP Partners	Comcast, Cox Communications
San Diego CA,	SBC	Concentric, Covad, Flashcom, NorthPoint, Rhythms, UUNET, Verio, Zyan, and 10 ISP Partners	Cox Communications, Time Warner Cable
Phoenix AZ	US West	Covad (expected 1999), Flashcom (expected May 1999), NorthPoint	Cox Communications

City/State	ILEC Provider(s) of xDSL Service	CLEC & Other Provider(s) of xDSL Service	MSA Provider(s) of Cable Modem Service
		(expected 1999), and Rhythms (expected 1999)	
Boston, MA	Bell Atlantic	Concentric, Covad, DigitalSelect, Flashcom, NorthPoint, Rhythms, Shore.Net, UUNET, Verio, WinStar, iCi, and 19 ISP Partners	Media One
Los Angeles, CA	SBC, GTE	Concentric, Covad, DigitalSelect, Flashcom, InteleNet, ICG Netcom, NorthPoint, Orconet, Rhythms, UUNET, Verio, Zyan, and 34 ISP Partners	Media One
Seattle WA	US West, GTE	Covad, Flashcom, Orconet, Telares, UUNET, Verio, and 13 ISP Partners	TCI

Source: *UNE Fact Report*, Peter W. Huber and Evan T. Leo submitted by the U.S. Telephone Association, IntreWatter of: Implementation of the Local Competition Provisions in the Telecommunications Act of 1996., cc Docket 96-98, taken from Tables 2 and 6, pp. VI-7 and VI-21